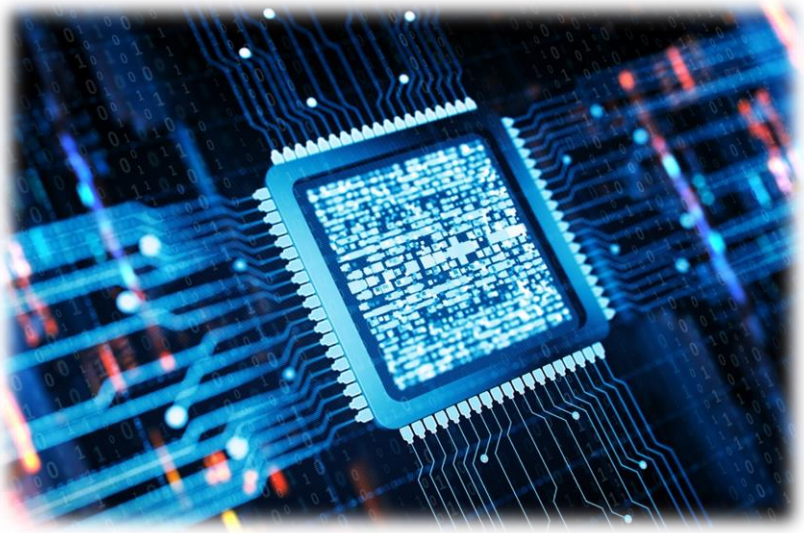
Wellsprings School

Computing Policy



Summer 2023

Creativity	High Achievement	Enjoyment
Developing resilience: • We encourage open-mindedness, perseverance, self-assessment and responsibility. • We make links to other areas of the curriculum to encourage pupils to transfer skills. **An enquiring mind:** • We develop and encourage exploration within units of work. Pupils can guide the direction of their learning. **Being creative:** • Children use a different set of tools in computing that allow them to be creative in different ways through a variety of media.	**Working together:** • Children will be celebrated for helping peers and explaining processes to the class. They will work collaboratively using software and also by sharing devices. • We use key skills in order to enhance learning in other areas of the curriculum. **Independence:** • We aim to give our pupils experiences and insights that will prepare them for life in an ever-changing technological world. We are mindful that our children may pursue careers in industries that may not yet exist.	**Being active learners:** • We provide as many opportunities as possible for children to be hands-on with technology. We extend this by taking a look inside some devices to see how different technologies link together to make a device work. • We give practical, real-world contexts in order to motivate pupils and give learning purpose. • We develop a positive and responsible attitude towards technology and the use of the internet.

Intent

Computing at Wellsprings Primary School intends to develop 'thinkers of the future' through a modern, ambitious and relevant education in computing. We understand that we are developing digital skills, computational thinking and creativity that children will build upon throughout their lives for future roles in society, using technology that may not exist yet!

We want to equip pupils to use computational thinking and creativity that will enable them to become responsible and active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

We want to develop children as respectful and confident users of technology, whilst ensuring they understand the advantages and disadvantages associated with online experiences in order to keep themselves safe.

Our aim is to provide a computing curriculum that balances broad and deep knowledge alongside opportunities to apply skills in a variety of contexts across other curriculum areas.

Implementation

Our scheme of work for Computing is adapted from the 'Teach Computing' Curriculum and covers all aspects of the National Curriculum. This scheme was chosen as it has been created by subject experts and based on the latest pedagogical research. It is kept up-to-date and offers a clear progression framework throughout Key Stage One and Two, as well as preparing pupils for Key Stage Three.

Throughout Key Stage One and Two, computing units are delivered in three strands; computing systems and networks, programming, creating media and data and information. Knowledge and skills in each strand are revisited in a 'spiral curriculum'. The suggested order of the units in the Teach Computing curriculum have been adapted to suit our rolling program for mixed age classes. These can be found in Appendix A.

Within the new EYFS curriculum the 'Technology' strand has been removed from 'Understanding the World' and has not been replaced with any updated guidance. However, computing and technology are still vitally important subjects to teach in EYFS. Teaching computing within the curriculum ensures that children enter Year 1 with a strong foundation of knowledge.

We live in a technological world and there is no escape from the reality that technology is integrated into the lives of young children. Just as we ensure the children in our care are ready for the adult world by teaching them maths and literacy, we should also make sure that they are fluent in digital literacy and all-important e-safety.

In Squirrels EYFS we will encourage every child to be curious, ask questions and make connections in the world around them. We will;

- Encourage use of technology for a range of purposes. For example, they use code-a-pillars as an introduction to algorithms, as well as being supported to use technology safely in role-play areas.
- Provide children with frequent opportunities for exploring a range of technology. Children will make links between real-world and digital resources as they learn to identify computers and digital devices.

E-Safety and Digital Citizenship

A key part of implementing our computing curriculum is to ensure that safety of our pupils is paramount. We take online safety very seriously and we aim to give children the necessary skills to keep themselves safe online, starting in EYFS and developing through to Year 6. Children have a right to enjoy childhood online, to access safe online spaces and to benefit from all the opportunities that a connected world can bring them, appropriate to their age and stage.

Children build their online resilience and responsibility predominantly through PSHE using the Jigsaw framework which is supplemented with sessions from Project Evolve's 'Education for a Connected World'. In addition to this, open and honest discussions are encouraged from children's and adult's personal experiences online. Jigsaw was selected as a result of focus group review of sample lessons. Resources are also hosted online rather than on our system, which saves drive space as we are limited. It is also similar to the Teach Computing curriculum as we have found it to be very user-friendly and the additional resources are very engaging for our children. Project Evolve has been selected as it stretches from EYFS through to Year 6 and offers activities that closely match Jigsaw in the way

that they are intended to be delivered. The activities are designed to be used 'unplugged' so teachers can adapt the sessions to fit anywhere in their timetable.

To ensure our teachers are fully equipped to deliver our ambitious programme, as well as enhancing other subject areas, we have a variety of technologies available for use across the curriculum:

- Two sets of 32 Chromebooks
- Five VU+ data loggers
- 20 Micro:bits
- 6 Beebots
- 3 Code-A-Pillars with additional segment packs
- 5 V-Tech cameras (child use)
- A class camera in each class
- Teacher-use desktop PC in each class
- Visualiser in each class
- Interactive touch-screen in each class
- Class set of 30 pairs of headphones

Teachers must book in one computing lesson per week, however they are also able to use the Chromebooks enhance other curriculum areas.

We also have access to additional resources from our local computing hub at The Castle School.

Children and all staff have access to G-suite which includes Google Classroom. This is used to roll out digital resources to children in an organised way and can include web links, written instructions and a host of documents including word processing, publishing, spreadsheet and presenting apps. This process is streamlined using Wonde to automatically assign logins and enable Single Sign-On for pupils and staff.

Wonde also allows progression in logins; KS1 use QR codes to login, Year 3/4 use an emoji code and Year 5/6 login using usernames and complex passwords. These services all link together to ensure that children can spend as much time as possible developing their knowledge and skills – we feel this has had a huge impact on our computing curriculum as a whole, especially with enough devices to ensure a 1:1 ratio.

To support pupils with SEND, we have adapted the login process and also have some touch screen devices available where required. Headphones are also available and accessibility options can be accessed by all users. Among these options are settings to enlarge the font and enable high-contrast mode, as well as a screen reader for pupils who have difficulty reading. Devices are available to

support across the curriculum where a child has a temporary need, for example an inability to write due to an injury. Lessons can be easily rolled out and work submitted through the use of Google Classroom. Emoji icons are also used to enable pupils to access the correct lesson quickly, where their literacy skills may limit their access to reading the lesson titles.

Currently, technical support is provided by Computeam with curriculum support offered by Somerset's e-LIM.

Impact

At two points during the year, teachers will provide a judgement for each child determining whether they are exceeding, at or below age related expectations in relation to the units covered. Examples of children's work will be collated and stored in a Google Drive folder for the purposes of work scrutiny.

As children develop new skills throughout each year, they will become confident and responsible users of technology. They will use their knowledge of hardware and software to make informed choices of suitability relating to a specific brief. They will support others by guiding and explaining the skills needed to achieve. Pupils will have a secure understanding of, and be able to use specific technical vocabulary taught in each unit.

Date of Review	May 2016
By whom	NW/JS
Date of review	July 2019
By whom	LJ/JS
Date of review	July 2021
By whom	LJ/JS/ML
Date of review	July 2023
By whom	LJ/JS/ML
Date of next review	July 2025

Appendix A

YEAR A	HT1	HT2	HT3	HT4	HT5	HT6
Y1/2 Kingfishers	Computer systems and networks (Yr2) Information technology around us	Creating media (Yr2) Digital music	Programming B (Yr1) Programming animations	Creating media (Yr2) Digital Photography	Data and Information (Yr1) Grouping data	Programming B (Yr2) Programming quizzes
Y3/4 Robins Hares Adders	Computing Systems and Networks (Yr3) Connecting Computers	Creating Media (Yr3) Stop Frame Animation	Programming A (Yr3) Sequencing Sounds	Creating media (Yr3) Desktop Publishing	Data and Information (Yr3) Branching Databases	Programming A (Yr4) Repetition in Shapes
Y5/6 Otters Foxes Rabbits	Computer systems and networks (Yr5) Sharing information	Creating Media (Yr5) Vector Drawing	Programming A (Yr5) Selection in physical computing	Data and Information (Yr5) Flat file databases	Creating Media (Yr6) 3D Modelling	Programming B (Yr6) Sensing movement
Digital wellbeing and safety	Health, Well-being and Lifestyle	Self-Image and Identity	Online relationships and reputation (including online bullying)	Managing online information	Privacy and Security	Copyright and Ownership

Appendix A (continued)

YEAR B	HT1	HT2	HT3	HT4	HT5	HT6
Y1/2 Kingfishers	Computing systems and networks (Yr1) Technology around us	Creating media (Yr1) Digital painting	Programming A (Yr1) Moving a robot	Data and Information (Yr2) Pictograms	Creating media (Yr2) Digital music	Programming A (Yr2) Robot algorithms
Y3/4 Robins Hares Adders	Computer systems and networks (Yr4) The Internet	Creating Media (Yr4) Audio Production	Programming B (Yr3) Events and actions in programs	Data and Information (Yr4) Data Logging	Creating Media (Yr4) Photo Editing	Programming B (Yr4) Repetition in games
Y5/6 Otters Foxes Rabbits	Computer systems and networks (Yr6) Communication and Collaboration	Creating Media (Yr6) Web page creation	Programming B (Yr5) Selection in quizzes	Data and Information (Yr6) Introduction to spreadsheets	Creating Media (Yr5) Introduction to Vector graphics	Programming A (Yr6) Variables in games
Digital wellbeing and safety	Health, Well-being and Lifestyle	Self-Image and Identity	Online relationships and reputation (including online bullying)	Managing online information	Privacy and Security	Copyright and Ownership